ABSTRACT OF THE DISCLOSURE

A ferroelectric thin film element comprises a substrate and an epitaxial ferroelectric thin film provided on the substrate. The epitaxial ferroelectric thin film satisfies a relation $z/z_0 > 1.003$. A crystal face parallel to a crystal face of a surface of the substrate among crystal faces of the epitaxial ferroelectric thin film is taken as a Z crystal face, a face spacing of the Z crystal face is taken as z and a space of the Z crystal face of a material constituting the epitaxial ferroelectric thin film in a bulk state is taken as z_0, and also satisfies a relation $0.997 \leq x/x_0 \leq 1.003$. One of crystal faces of the epitaxial ferroelectric thin film perpendicular to the Z crystal face is taken as an X crystal face, a face spacing of the X crystal face is taken as x and a face spacing of the X crystal face of the material constituting the epitaxial ferroelectric thin film in a bulk state is taken as x_0.